

Notes on the Donaciini (Col: Chrysomelidae), with a List of Recent East Kentish Localities known to the Author

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(Concluded from Volume 91, page 326)

The nine species found in the Canterbury area were:—

1. *Donacia simplex* F. At least a dozen different localities, amongst them Sandwich, Westbere, Stodmarsh, Chartham, Ash. On *Sparganium erectum (ramosum)* only.
2. *D. vulgaris* Zsch. All over the Sandwich area but never abundant, always in drainage dikes, and at Grove Ferry in a small ditch leading into the Stour. [On *Typha* and sometimes *Sparganium* — A.A.A.]
3. *D. marginata* Hoppe. Perhaps the commonest species in the area, though just lately I have not seen so much of it. Evenly distributed over the Sandwich area; Westbere and Stodmarsh, Denstroode, Sarre, Canterbury (Thanington), etc. On *Sparganium erectum*.
4. *D. clavipes* F. One locality only, in the ditches along the main road between Ash and Sandwich. I took only a few specimens for fear of erasing the colony, but it seems to have died out anyway. On *Phragmites communis*. The individuals lay close to the upper stem, with antennae stretched out in front and hind legs stretched behind, and were very sluggish.
5. *D. semicuprea* Panz. The foodplant of this species, *Glyceria maxima (Poa aquatica* in older books), occurs commonly in small colonies but is hard to find in the quantities apparently need to support the beetle. I have the species from Fordwich, in a ditch leading to one of the lakes, and from two adjacent localities in Sandwich; each time in some numbers. One of the Sandwich sites is in a field opposite the R.A.F. Radar Station on the Canterbury road, from which area I have on more than one occasion in the past been escorted by polite RAF military policemen, for reasons of National Security”!
6. *D. versicolore*a Brahm. Although occurring more generally in the Rother Valley in south-west Kent, in the area in question I could find it in one place only, in a pond near the coast at Faversham Creek, where it was present in profusion, as usual on *Potamogeton natans*. It occurs also at Maytham.
7. *Plateumaris sericea* L. Frequent around Sandwich, Minsster, Stodmarsh, often in company with *D. marginata* but rather less common than that species. On *Sparganium erectum (ramosum)*.
8. *P. discolor* Panz. The distribution of this species appears to be limited by the availability of sphagnum, which I have always assumed without justification to be the foodplant.

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Mr. Philp of Maidstone (a much more experienced coleopterist than I) has pointed out that this is a non sequitur. Few other insects seem to find sphagnum a delicacy, and it is, I suppose, more likely that the foodplant is a grass or sedge favouring the same conditions¹⁷. The beetle occurs on Hothfield Common near Charing (where the unique Kentish peat-bog is situated).

9. *P. braccata* Scop. Again one locality only in the area, in the ditches bordering the main Ash to Sandwich road, on *Phragmites communis*, with *D. clavipes* (above). The conditions appear to be duplicated in a hundred other places in Kent, yet there must be a special invisible factor which suited both species at this particular spot.

The four species found in the extended area (see above)

were: —

10. *Donacia sparganii* Ahr. This occurred in surprising abundance in a drainage ditch on the road from Rye to Winchelsea, on *Sparganium emersum (simplex)*, on which plant alone I have found it in several localities in East Anglia. The colony remained for some years, and then the ditch suffered salt-pollution (or just possibly a massive dose of herbicide) and has not since recovered. [Occurs abroad on *Butomus* also. Hansen gives *Nuphar* as the primary host in Denmark. — A.A.A.]
11. *D. dentata* Hoppe. Found in several places in the Maytham area of the Rother levels, near Rolvenden, where it still seems to be well established. The foodplant apparently likes a maintained water-level and the River Board drains, which are kept full throughout the summer, are ideal for its welfare. Always on *Sagittaria sagittifolia*¹⁸. [Abroad, also on *Alisma* (Mohr.). — A.A.A.]
12. *D. bicolora* Zsch. Discovered in some numbers at Botolph's Bridge near New Romney. Having found this species very commonly on the Basingstoke Canal I looked for it in similar places on the Hythe Military Canal, but without success. The Botolph's Bridge colony seems to be quite isolated. [Several recorded foodplants, but chiefly on *Sparganium erectum*. — A.A.A.]
13. *D. cinerea* Hbst. A single specimen from *Typha angustifolia* in a gravel pit at Dungeness. [I have an example taken in this locality by the late S. Wakely. Mainly attached to *Typha* spp. (reedmace); other foodplants abroad. — A.A.A.]

One further species was found, not by my own researches but by the kind courtesy of Mr. Philp, who told me of its occurrence in the locality some years before: —

14. *Macrolea mutica* F. A number were taken in a large expanse of water near Rye¹⁹, on *Potamogeton pectinatus*. Their capture was rendered the more difficult because on removing the net from the water the beetles remain quite motionless for about ten minutes, and then move so slowly that they are very easily missed. It is notable that this

species appeared very much earlier in the year than the members of *Donacia* or *Plateumaris*, the bulk being taken in May. Later, the plant often reaches mattress proportions and is then impossible to search.

[¹While the first two genera are very close and were formerly united under *Donacia*, the third (with only two British species) stands apart in several respects and is somewhat aberrant within the tribe.

²This is made possible by the hydrofuge (unwetterable) covering of the underside, consisting of an extremely dense and short pile — silvery, or golden in a few species — which holds air-bubbles; an example of 'plastron respiration' exactly like that found in the pondskaters (Gerriidae). It is not, however, possessed by *Macropsea*, which lives fully submerged in all stages, and to which, therefore, apart from their great tenacity, Mr. Parry's general remarks on adult habits in the tribe are of course not intended to apply.

³During the last 30 years or so I have found *D. marginata* more often and *D. simplex* less, as compared with the two previous decades. *Marginata* is today much less local than e.g. *bicolora*, which was evidently not so in Fowler's time (late 19th century). I believe that *D. cinerea* also — considered rather rare — underwent a similar relative increase from about the mid or late 1940s.

⁴Of these species I have found *semicuprea* in more places and more freely than any other, followed next in order by *discolor* and (sparingly except once) *vulgaris*; *sericea* (supposed to common) less frequently.

⁵However, even isolated wayside ponds and ditches, well away from extensive marshes, can harbour several species together and are by no means to be neglected.

⁶Also occurs in England (Norfolk, Cheshire and Cumberland) if the records are correct; isolated ones from Sussex and Dorset may just possibly have been based on abnormal unicolorous individuals of *marginata*; further recorded from several Irish localities.

⁷Fowler (1890) includes May for several species but agree with Mr. Parry that nowadays, at all events, they are seldom about much before June — perhaps because our summers tend to begin later than they used to. *D. marginata* appears to have a longer period which can extend to early September, at which time I have also taken *versicolorea* singly. The latter species and also *dentata* occur in August as well as July. The late J. Cribb used to find *crassipes* from late April to July at Pond Lye in Sussex, but mostly May-June (and told me that it is often easier collected in cool, dull or wet weather when it may be found hiding under the water-lily leaves — on fine days it is very wary and hard to catch). Victor Hansen gives May-August for about half the Danish species; and for some, April-August. For some abnormal occurrences of *Donacia* spp. see Allen, 1973, *Ent. mon. Mag.*, 109: 125.

⁸I have found *D. vulgaris* in early spring concealed deep in the axils of young reeds (*Typha*) and believe that these and Mr. Parry's winter specimen(s) of *simplex* were new-generation beetles that had emerged from their cocoons the previous autumn, this probably being the rule. Hansen (1927) mentions that *D. obscura* overwinters as an imago.

⁹Such reservations must be very considerable, for authorities are unanimous in assigning at least two foodplant genera to most of the species, and not infrequently more; monophagy thus seems to be the exception, though there may well be a greater tendency to it in our insular fauna as with other phytophagous insects.

¹⁰The discrimination shown by this colony of *D. crassipes* is indeed curious and seemingly unaccountable. From the records, there can be little doubt that both water-lily genera support it — with, however, *Nymphaea* as the primary host in Britain. Possibly, certain isolated colonies tend to become monophagous. *Nuphar* is given (in second place) mostly by foreign authors (as Reitter, Hansen, Mohr), and Mr. Parry's record above may perhaps be the first definite British association with this plant to be noted.

¹¹My first find of *D. versicolore* was of two specimens hidden in the axils of burreed (probably *S. erectum*) in a field pond in N. Somerset in 1931, and two more in the same way a year later. Pondweed, the true foodplant, was doubtless present but the beetle was not to be seen on it. This seems to show that Donaciini may utilize other plants for shelter than those on which they feed, and serves to underline the point made by Mr. Parry that in unsuitable weather they may be discoverable only by very careful searching, if at all.

¹²This very handsome species (Fowler's *D. dentipes* F.) I regard as our most uncommon *Donacia* (leaving aside *obscura*), and *thalassina* the next. *D. aquatica*, like *obscura*, appears to be absent from Kent but several Sussex localities are on record. The foodplants in Britain are not well ascertained, but foreign authors mention *Ranunculus lingua* and that favourite *Donacia*-plant, *Sparganium*. When I took it, sparingly and very locally, in a ditch at Arundel in 1930 and 33, most if not all were on a floating 'grass' (possibly *Glyceria fluitans*). Further research seems indicated.

¹³I know of no recent Kent record, but the V.C.H. list gives Pegwell Bay and Deal. J. J. Walker used to take most of the British species in ditches behind the Deal sandhills, including the present one. Recorded foodplants are *Scirpus*, *Carex*, and *Typha*. I have only once met with *D. thalassina* — a few examples at the Wake Valley Pond in Epping Forest (1954), apparently from a *Carex* sp.

¹⁴*D. impressa* and *P. discolor* can occur in profusion (for the former cf. Allen, 1954, *Ent. mon. Mag.*, 90: 56).

¹⁵Besides those suggested here, I think that other contributory factors may be the persistence of residues from the widespread use of organochlorine pesticides in the '40s and '50s, and the continual seepage of nitrates into the water from inorganic fertilizers, leading to oxygen deficiency.

¹⁶For Donaciini in Sussex see Cribb, 1954, *Ent. mon. Mag.* 90: 80; Allen, *ibid.*: 144.

¹⁷As with *D. aquatica*, the foodplants of *P. discolor* in Britain appear uncertain, despite the comparative frequency of the species, but I think that almost certainly Mr. Parry's second suggestion is right. Sphagnum, besides being inherently unlikely as a foodplant in the group, is sometimes absent where the beetle occurs, nor is the situation always boggy. This was the case when I first found *discolor*, in a N. Somerset valley, very copiously on flowers of kingcup or marsh marigold (*Caltha palustris*) in or near a shallow, more or less stony-bottomed stream. Continental authors associate it with unspecified sedges and also cotton-grass (*Eriophorum*), which are closely related.

¹⁸On 13.viii.70 my late friend G. Shephard and I each swept an example of this species off flowers of arrowhead which abounded in a pasture drainage-ditch on the marshes at Amberley, Sussex; we could not get near enough to search the leaves, but could see no beetles on them. This is the only time that I have fallen in with *D. dentata* — metaphorically, I hasten to add (though it was a near thing, with over-friendly and highly inquisitive cows persistently shoving and jostling us).

¹⁹This was fresh water, I understand — a circumstance very unusual for this normally brackish-water species. The other principal host-plant is *Ruppia*; *Zostera*, given by the older writers, seems questionable because of its marine habit. — A.A.A.]

EARLY DATE FOR THE DECEMBER MOTH: POECILOCAMPA POPULI (L.). — Amongst the 15 species of moths that appeared at my m.v. trap at Trosley Country Park, Kent, on 20th October was a fresh male of this species. This seems a very early date for this moth. — D. DEY, 9 Monmouth Close, Rainham, Gillingham, Kent, 24.x.79.

AN APOLOGY. — In my review of David Carter's *The Observer's Book of Caterpillars* (*Ent. Rec.*, 91: 176), I was in error in naming the larva figured as *Xylena exsoleta* as *X. vetusta*. — E. H. WILD.